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DATE: Sunday, September 03, 2006

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		<i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L5	((("6660471"   "6750009"   "6943246")!.PN.) .p63-p142.	3
<input type="checkbox"/>	L4	L3	13
		<i>DB=PGPB,USPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L3	L1 and mutant	92
<input type="checkbox"/>	L2	L1 and transactivator	6
<input type="checkbox"/>	L1	HCV adj replicon	325

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FILE 'HOME' ENTERED AT 18:01:11 ON 03 SEP 2006

=> file caplus biosis

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
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FILE 'CAPLUS' ENTERED AT 18:01:31 ON 03 SEP 2006

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FILE 'BIOSIS' ENTERED AT 18:01:31 ON 03 SEP 2006

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=> HCV (s) replicon

L1 809 HCV (S) REPLICON

=> transactivation

L2 24813 TRANSACTIVATION

=> L2 and l1

L3 10 L2 AND L1

=> Tat and L3

L4 0 TAT AND L3

=> subgenomic (l) HCV

L5 495 SUBGENOMIC (L) HCV

=> replicon and L5

L6 419 REPLICON AND L5

=> T7 and L6

L7 4 T7 AND L6

=> Tat and L6

L8 6 TAT AND L6

=> D L6 IBBIB ABS 1-6

'IBBIB' IS NOT A VALID FORMAT

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REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):IBIB

L6 ANSWER 1 OF 419 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:889281 CAPLUS

TITLE: Replication of HCV subgenomic  
replicons in two new cell lines

AUTHOR(S): Wu, Gang; Wu, Ying-song; Dong, Wen-qi; Chen, Bai-hong;  
Li, Ming

CORPORATE SOURCE: Coll. Biotechnol., Southern Med. Univ., Guangzhou,  
510515, Peop. Rep. China

SOURCE: Redai Yixue Zazhi (2006), 6(5), 514-517, C3, C2  
CODEN: RYZEAI; ISSN: 1672-3619

PUBLISHER: Guangdong Redai Yixue Zazhishe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

L6 ANSWER 2 OF 419 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:874383 CAPLUS

TITLE: Improved replicon cellular activity of  
non-nucleoside allosteric inhibitors of HCV NS5B  
polymerase: From benzimidazole to indole scaffolds

AUTHOR(S): Beaulieu, Pierre L.; Gillard, James; Bykowski, Darren;  
Brochu, Christian; Dansereau, Nathalie; Duceppe,  
Jean-Simon; Hache, Bruno; Jakalian, Araz; Lagace,  
Lisette; LaPlante, Steven; McKercher, Ginette; Moreau,  
Elaine; Perreault, Stephane; Stammers, Timothy;  
Thauvette, Louise; Warrington, Jeff; Kukolj, George

CORPORATE SOURCE: Research and Development, Boehringer Ingelheim  
(Canada) Ltd., 2100 Cunard Street, Laval (Quebec), H7S  
2G5, Can.

SOURCE: Bioorganic & Medicinal Chemistry Letters (2006),  
16(19), 4987-4993

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

L6 ANSWER 3 OF 419 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:861726 CAPLUS

TITLE: HepDirect- prodrugs of 2'-methyladenosine for  
liver-targeted therapy of hepatitis C

AUTHOR(S): Hecker, Scott J.; Reddy, K. Raja; van Poelje, Paul D.;  
Sun, Zhili; Mali, V. Reddy; Huang, Wenjian;  
Varkhedkar, Vaibhav; Fujitaki, James; Insko, Michael;  
Kruttil, Douglas; Chi, Bert; Olsen, David B.;  
Koeplinger, Kenneth A.; Boyer, Serge H.; Linemeyer,  
David; MacCoss, Malcolm; Erion, Mark D.

CORPORATE SOURCE: Department of Medicinal Chemistry, Metabasis  
Therapeutics, Inc, La Jolla, CA, 92037, USA

SOURCE: Abstracts of Papers, 232nd ACS National Meeting, San  
Francisco, CA, United States, Sept. 10-14, 2006 (2006)  
, MEDI-271. American Chemical Society: Washington, D.  
C.

CODEN: 69IHRD

DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)

LANGUAGE: English

L6 ANSWER 4 OF 419 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:861696 CAPLUS

TITLE: Synthesis and structure-activity relationship studies  
of benzimidazole and related compounds as hepatitis C  
virus NS5B RNA-dependent RNA polymerase inhibitors

AUTHOR(S): Oka, Takahiro; Hirashima, Shintaro; Ikegashira,  
Kazutaka; Noji, Satoru; Yamanaka, Hiroshi; Hara,  
Yoshinori; Ishida, Tomio; Suzuki, Takayoshi; Yata,  
Shinji; Ando, Izuru; Ikeda, Satoru; Hashimoto,  
Hiromasa

CORPORATE SOURCE: Central Pharmaceutical Research Institute, Japan  
Tobacco Inc, Takatsuki, Osaka, N/A, Japan

SOURCE: Abstracts of Papers, 232nd ACS National Meeting, San  
Francisco, CA, United States, Sept. 10-14, 2006 (2006)  
, MEDI-241. American Chemical Society: Washington, D.  
C.

CODEN: 69IHRD

DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)

LANGUAGE: English

L6 ANSWER 5 OF 419 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:861695 CAPLUS

TITLE: Discovery of VP19744: A pyrano[3,4-b]indole-based  
inhibitor of HCV NS5B polymerase demonstrating in vivo

antiviral activity  
AUTHOR(S): LaPorte, Matthew G.; Jackson, Randy W.; Burns,  
Christopher J.; Draper, Tandy L.; Gaboury, Janet A.;  
Galie, Kristin; Herbertz, Torsten; Hussey, Alison R.;  
Rippin, Susan R.; Benetatos, Christopher A.; Chunduru,  
Srinivas K.; Young, Dorothy C.; Christiansen, Joel S.;  
Coburn, Glen A.; Rizzo, Christopher J.; Collett, Marc  
S.; Pevear, Daniel C.; Condon, Stephen M.  
CORPORATE SOURCE: Department of Medicinal Chemistry, ViroPharma Inc,  
Exton, PA, 19341, USA  
SOURCE: Abstracts of Papers, 232nd ACS National Meeting, San  
Francisco, CA, United States, Sept. 10-14, 2006 (2006)  
, MEDI-240. American Chemical Society: Washington, D.  
C.  
CODEN: 69IHRD  
DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)  
LANGUAGE: English

L6 ANSWER 6 OF 419 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:856575 CAPLUS

TITLE: Bleomycin is a potent small molecule inhibitor of  
hepatitis C virus replication

AUTHOR(S): Rakic, Bojana; Brulotte, Marc; Pezacki, John Paul

CORPORATE SOURCE: The Steacie Institute for Molecular Sciences, National  
Research Council Canada/ University of Ottawa, Ottawa,  
ON, K1A 0R6, Can.

SOURCE: Abstracts of Papers, 232nd ACS National Meeting, San  
Francisco, CA, United States, Sept. 10-14, 2006 (2006)  
, BIOL-094. American Chemical Society: Washington, D.  
C.

CODEN: 69IHRD

DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)

LANGUAGE: English

=> D L7 IBIB ABS 1-4

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:889281 CAPLUS

TITLE: Replication of HCV subgenomic  
replicons in two new cell lines

AUTHOR(S): Wu, Gang; Wu, Ying-song; Dong, Wen-qi; Chen, Bai-hong;  
Li, Ming

CORPORATE SOURCE: Coll. Biotechnol., Southern Med. Univ., Guangzhou,  
510515, Peop. Rep. China

SOURCE: Redai Yixue Zazhi (2006), 6(5), 514-517, C3, C2

CODEN: RYZEAI; ISSN: 1672-3619

PUBLISHER: Guangdong Redai Yixue Zazhishe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

**AB** Objective: HCV is a major leading cause of chronic liver diseases. Very little is known about HCV until the HCV virus was cloned in 1989. The major obstacles in the study HCV are (1) the virus particles are not frequently found in the blood and hepatobiopsy samples, (2) lack of a robust culture system and (3) lack of a convenient small animal model. The great progress in the field of in vitro HCV culture was the establishment of the selectable subgenomic replicon system in 1999. The system provides a platform to study the replication mechanism of the virus, the relationship between the virus and its host cells, and the metabolic characteristic of enzymes encoded by HCV. The system is also useful for scanning of new compds. against HCV. However the system is restricted to use in only a few cell lines such as Huh7, 293, Hela and Hepa1-6. Another drawback is the lack of structural genes in the replicon so it produces no virus particles. Thus it is desirable to have an improved replicon system. But it is uncertain that the replicon-sustained cell lines now existing have the cellular condition favorable for virus particles assembly and secretion, so we first screened for more replicon-sustained cells. Methods: The plasmid pNNeo3-5B comprises replicon cDNA of HCV-N. This replicon RNA has previously been proved to have the ability to replicate in Huh7. Deleting pNNeo3-SB BsaB I -Hpa I segment, which covers the NS5B GDD motif, resulted in a replicate-deficient replicon plasmid pNNeo3- 5B(A). After digestion with Xba I , the two plasmids were transcribed with T7 RNA polymerase to produce rNNeo3-5B and rNNeo3-5B (A). A panel of mammalian cell lines including Huh7, SMMC7721, HepG2, BEL7402, Lo2, CBRH7919, BHK\_, Vero E6, 293 and 293T were electroporated with rNNeo3-5B, followed by feeding the medium with G418 at 800  $\mu$ g/mL. Results: After three weeks, cell clones were found only in CBRH7919 and BHK21. Electroporating of cells with rNNeo3-5B(.DELTA.) failed to confer G418 resistance. Cells without replicon dropped off when fed with G418 at the same concn. Results from RT-PCR confirmed that the replicon RNA efficiently replicated in each clone. Conclusion: The expression of HCV NS3 and NS5A proteins was validated by immunofluorescence and Western blot. This work provides evidence that CBRH7919 and BHK21 cells can sustain HCV replicon, therefore they are potential hosts for HCV particles.

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:315056 CAPLUS

DOCUMENT NUMBER: 145:4018  
TITLE: Inhibition of hepatitis C virus RNA replication by  
short hairpin RNA synthesized by T7 RNA  
polymerase in hepatitis C virus subgenomic  
replicons  
AUTHOR(S): Hamazaki, Hiroyuki; Ujino, Saneyuki; Miyano-Kurosaki,  
Naoko; Shimotohno, Kunitada; Takaku, Hiroshi  
CORPORATE SOURCE: Department of Life and Environmental Sciences, Chiba  
Institute of Technology, 2-17-1 Tsudanuma, Narashino,  
Chiba, 275-0016, Japan  
SOURCE: Biochemical and Biophysical Research Communications  
(2006), 343(3), 988-994  
CODEN: BBRCA9; ISSN: 0006-291X  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB RNA interference (RNAi) is a cellular process that induces gene silencing  
by which small duplexes of RNA specifically target a homologous sequence  
for cleavage by cellular RNases. Here, to test the RNAi method for  
blocking hepatitis C virus (HCV) RNA replication, we created four short  
hairpin RNAs (shRNAs) targeting the HCV internal ribosome entry site/Core  
gene transcript using T7 RNA polymerase. ShRNA suppressed the  
replication of HCV RNA in the HCV replicon. On the other hand,  
short interfering RNAs synthesized using the T7 RNA polymerase  
system trigger a potent induction of interferon- $\alpha$  and - $\beta$  in a  
variety of cells. We examd. whether the shRNAs synthesized using the  
T7 RNA polymerase system activated double-stranded RNA-dependent  
protein kinase, 2'-5' oligoadenylate synthetase, or interferon-regulatory  
factor-3. Our results demonstrated that the T7-transcribed  
shRNA did not activate these proteins in Huh-7 cells and the HCV  
replicon. These shRNAs are a promising new strategy for anti-HCV  
gene therapeutics.  
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:407405 CAPLUS  
DOCUMENT NUMBER: 139:239740  
TITLE: The effect of ribavirin and IMPDH inhibitors on  
hepatitis C virus subgenomic replicon RNA  
AUTHOR(S): Zhou, Sifang; Liu, Rong; Baroudy, Bahige M.; Malcolm,  
Bruce A.; Reyes, Gregory R.  
CORPORATE SOURCE: Antiviral Therapy, Schering-Plough Research Institute,  
Kenilworth, NJ, 07033, USA  
SOURCE: Virology (2003), 310(2), 333-342

CODEN: VIRLAX; ISSN: 0042-6822

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

**AB** The recent development of in vitro hepatitis C virus (HCV) RNA replication systems has provided useful tools for studying the intracellular anti-HCV activity of ribavirin. Ribavirin has been shown to: induce "error catastrophe" in poliovirus be a pseudo-substrate of the HCV RNA-dependent RNA polymerase (RdRp) in vitro, and increase mutations in HCV RNA in the binary T7 polymerase/HCV cDNA replication system. These findings have led to the hypothesis that ribavirin may also induce error catastrophe in HCV. However, the functional relevance of ribavirin-induced HCV RNA mutagenesis is unclear. By use of a colony formation assay, in which RNA is isolated from the HCV subgenomic replicon system following treatment, the impact of ribavirin, inosine-5'-monophosphate dehydrogenase (IMPDH) inhibitors, and the combination was assessed. Ribavirin reduced HCV replicon colony-forming efficiency (CFE) in a dose-dependent fashion, suggesting that ribavirin may be misincorporated into replicon RNA and result in an anti-replicon effect analogous to error catastrophe. This effect was markedly suppressed by addn. of exogenous guanosine. Combination treatment with ribavirin and mycophenolic acid (MPA) or VX-497, both potent, nonnucleoside IMPDH inhibitors, led to a greatly enhanced anti-replicon effect. This enhancement was reversed by inclusion of guanosine with the treatment. In contrast, MPA or VX-497 alone had only marginal effects on both the quantity and quality (CFE) of replicon RNA, suggesting that although IMPDH inhibition is an important contributing factor to the overall ribavirin anti-HCV replicon activity, IMPDH inhibition by itself is not sufficient to exert an anti-HCV effect. Sequencing data targeting the neo gene segment of the HCV replicon indicated that ribavirin together with MPA or VX-497 increased the replicon error rate by about two-fold. Taken together these results further suggest that lethal mutagenesis may be an effective anti-HCV strategy. The colony formation assay provides a useful tool for evaluating mutagenic nucleoside analogs for HCV therapy. Finally, the data from combination treatment indicate potential therapeutic value for an enhanced anti-HCV effect when using ribavirin in combination with IMPDH inhibition.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L7 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:303187 BIOSIS

DOCUMENT NUMBER: PREV200300303187

TITLE: The effect of ribavirin and IMPDH inhibitors on hepatitis C virus subgenomic replicon RNA.

AUTHOR(S): Zhou, Sifang; Liu, Rong; Baroudy, Bahige M.; Malcolm, Bruce A.; Reyes, Gregory R. [Reprint Author]

CORPORATE SOURCE: Infectious Diseases and Oncology, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ, 07033, USA

gregory.reyes@spcorp.com

SOURCE: Virology, (June 5 2003) Vol. 310, No. 2, pp. 333-342. print.

ISSN: 0042-6822 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 2 Jul 2003

Last Updated on STN: 2 Jul 2003

AB The recent development of in vitro hepatitis C virus (HCV) RNA replication systems has provided useful tools for studying the intracellular anti-HCV activity of ribavirin. Ribavirin has been shown to: (1) induce "error catastrophe" in poliovirus (Crotty et al., 2001, Proc. Natl. Acad. Sci. USA 98, 6895-6900), (2) be a pseudo-substrate of the HCV RNA-dependent RNA polymerase (RdRp) in vitro (Maag et al., 2001, J. Biol. Chem. 276, 46094-46098), and (3) increase mutations in HCV RNA in the binary T7 polymerase/HCV cDNA replication system (Contreras et al., 2002, J. Virol. 76, 8505-8517). These findings have led to the hypothesis that ribavirin may also induce error catastrophe in HCV. However, the functional relevance of ribavirin-induced HCV RNA mutagenesis is unclear. By use of a colony formation assay, in which RNA is isolated from the HCV subgenomic replicon system following treatment, the impact of ribavirin, inosine-5'-monophosphate dehydrogenase (IMPDH) inhibitors, and the combination was assessed. Ribavirin reduced HCV replicon colony-forming efficiency (CFE) in a dose-dependent fashion, suggesting that ribavirin may be misincorporated into replicon RNA and result in an anti-replicon effect analogous to error catastrophe. This effect was markedly suppressed by addition of exogenous guanosine. Combination treatment with ribavirin and mycophenolic acid (MPA) or VX-497, both potent, nonnucleoside IMPDH inhibitors, led to a greatly enhanced anti-replicon effect. This enhancement was reversed by inclusion of guanosine with the treatment. In contrast, MPA or VX-497 alone had only marginal effects on both the quantity and quality (CFE) of replicon RNA, suggesting that although IMPDH inhibition

is an important contributing factor to the overall ribavirin anti-HCV replicon activity. IMPDH inhibition by itself is not sufficient to exert an anti-HCV effect. Sequencing data targeting the neo gene segment of the HCV replicon indicated that ribavirin together with MPA or VX-497 increased the replicon error rate by about two-fold. Taken together these results further suggest that lethal mutagenesis may be an effective anti-HCV strategy. The colony formation assay provides a useful tool for evaluating mutagenic nucleoside analogs for HCV therapy. Finally, the data from combination treatment indicate potential therapeutic value for an enhanced anti-HCV effect when using ribavirin in combination with IMPDH inhibition.

=> D L8 IBIB ABS 1-6

L8 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1017584 CAPLUS

DOCUMENT NUMBER: 143:434627

TITLE: Mutagenesis analysis of the rGTP-specific binding site of hepatitis C virus RNA-dependent RNA polymerase

AUTHOR(S): Cai, Zhaohui; Yi, MinKyung; Zhang, Chen; Luo, Guangxiang

CORPORATE SOURCE: Department of Microbiology, Immunology, and Molecular Genetics, University of Kentucky College of Medicine, Lexington, KY, 40536, USA

SOURCE: Journal of Virology (2005), 79(18), 11607-11617  
CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hepatitis C virus (HCV) nonstructural protein 5B (NS5B) is the virus-encoded RNA-dependent RNA polymerase (RdRp) essential for HCV RNA replication. An earlier crystallog. study identified a rGTP-specific binding site lying at the surface between the thumb domain and the fingertip about 30 Å away from the active site of the HCV RdRp. To det. its physiol. importance, we performed a systematic mutagenesis anal. of the rGTP-specific binding pocket by amino acid substitutions. Effects of mutations of the rGTP-specific binding site on enzymic activity were detd. by an in vitro RdRp assay, while effects of mutations on HCV RNA replication were examd. by cell colony formation, as well as by transient replication of subgenomic HCV RNAs. Results derived from these studies demonstrate that amino acid substitutions of the rGTP-specific binding pocket did not significantly affect the in vitro RdRp activity of purified recombinant NS5B proteins, as measured by their abilities to synthesize RNA on an RNA

template contg. the 3' untranslated region of HCV neg.-strand RNA. However, most mutations of the rGTP-specific binding site either impaired or completely ablated the ability of subgenomic HCV RNAs to induce cell colony formation. Likewise, these mutations caused either redn. in or lethality to transient replication of the human immunodeficiency virus Tat-expressing HCV replicon RNAs in the cell. Collectively, these findings demonstrate that the rGTP-specific binding site of the HCV NS5B is not required for in vitro RdRp activity but is important for HCV RNA replication in vivo.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:761023 CAPLUS

DOCUMENT NUMBER: 144:142050

TITLE: Screening for hepatitis C virus antiviral activity  
with a cell-based secreted alkaline phosphatase  
reporter replicon system

AUTHOR(S): Bourne, Nigel; Pyles, Richard B.; Yi, MinKyung;  
Veselenak, Ronald L.; Davis, Melissa M.; Lemon,  
Stanley M.

CORPORATE SOURCE: Department of Pediatrics, Department of Micorbiology  
and Immunology, University of Texas Medical Branch,  
Galveston, TX, 77555-0436, USA

SOURCE: Antiviral Research (2005), 67(2), 76-82  
CODEN: ARSRDR; ISSN: 0166-3542

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors describe a phased screening system for discovery of compds. with antiviral activity against hepatitis C virus (HCV). The primary assay utilizes dicistronic subgenomic HCV replicons in which the upstream cistron was modified to express the human immunodeficiency virus (HIV) tat protein. When these replicons are stably transfected into Huh-7-derived cells that express secreted alk. phosphatase (SEAP) under transcriptional control of the HIV long terminal repeat promoter, there is a strong correlation between intracellular HCV RNA abundance and the activity of SEAP secreted into the culture medium. Thus, active compds. are easily identified by direct enzymic quantification of SEAP in the medium without post-assay processing. Compds. that reduce SEAP activity without causing cellular toxicity are next evaluated in a second Huh-7-derived cell line constitutively expressing SEAP under control of the tat-HIV promoter axis, independent of HCV RNA replication. This

specificity control identifies compds. that cause redns. in SEAP that are unrelated to suppression of HCV RNA replication. Compds. showing HCV-specific activity in primary assays are next evaluated by real-time RT-PCR to directly quantify redns. in HCV RNA. The authors have found excellent agreement between the SEAP and RT-PCR assays. This phased system provides an efficient and cost-effective screen for compds. with antiviral activity against HCV.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:969892 CAPLUS

DOCUMENT NUMBER: 138:249449

TITLE: Subgenomic Hepatitis C Virus Replicons  
Inducing Expression of a Secreted Enzymatic Reporter  
Protein

AUTHOR(S): Yi, MinKyung; Bodola, Francis; Lemon, Stanley M.

CORPORATE SOURCE: Department of Microbiology and Immunology, The  
University of Texas Medical Branch at Galveston,  
Galveston, TX, 77555-1019, USA

SOURCE: Virology (2002), 304(2), 197-210

CODEN: VIRLAX; ISSN: 0042-6822

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We constructed dicistronic, subgenomic hepatitis C virus (HCV) replicons in which the sequence encoding the human immunodeficiency virus (HIV) tat protein was placed in the upstream cistron, between the HCV 5'NTR and a picornaviral 2A proteinase sequence fused to the selectable marker Neo. Stably transformed Huh7 cells expressing secreted alk. phosphatase (SEAP) under transcriptional control of the HIV LTR promoter actively secreted SEAP following transfection with these replicon RNAs. Extracellular SEAP activity correlated closely with intracellular HCV RNA levels, as detd. by Northern blotting and real-time RT-PCR anal. These RNAs replicated efficiently despite the absence of core-protein-coding sequence downstream of the HCV IRES. The replication efficiency of replicons derived from the HCV-N strain of HCV was significantly greater than those derived from Con1 in transiently transfected cells. Using this reporter system, we have demonstrated significant differences in the response to interferon .alpha.-2b in cell lines contg. replicons derived from these two strains of HCV.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
STN

ACCESSION NUMBER: 2005:514751 BIOSIS

DOCUMENT NUMBER: PREV200510306576

TITLE: Mutagenesis analysis of the rGTP-specific binding site of  
hepatitis C virus RNA-dependent RNA polymerase.

AUTHOR(S): Cai, Zhaohui; Yi, MinKyung; Zhang, Chen; Luo, Guangxiang  
[Reprint Author]

CORPORATE SOURCE: Univ Kentucky, Dept Microbiol Mol Genet and Immunol,  
Coll

Med, 800 Rose St,MN477, Lexington, KY 40536 USA  
gluo0@uky.edu

SOURCE: Journal of Virology, (SEP 2005) Vol. 79, No. 18, pp.  
11607-11617.

CODEN: JOVIAM. ISSN: 0022-538X.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 23 Nov 2005

Last Updated on STN: 23 Nov 2005

AB Hepatitis C virus (HCV) nonstructural protein 5B (NS5B) is the virus-encoded RNA-dependent RNA polymerase (RdRp) essential for HCV RNA replication. An earlier crystallographic study identified a rGTP-specific binding site lying at the surface between the thumb domain and the fingertip about 30 angstrom away from the active site of the HCV RdRp (S. Bressanelli, L. Tomei, F. A. Rey, and R. De Francesco, J. Virol 76:3482-3492, 2002). To determine its physiological importance, we performed a systematic mutagenesis analysis of the rGTP-specific binding pocket by amino acid substitutions. Effects of mutations of the rGTP-specific binding site on enzymatic activity were determined by an in vitro RdRp assay, while effects of mutations on HCV RNA replication were examined by cell colony formation, as well as by transient replication of subgenomic HCV RNAs. Results derived from these studies demonstrate that amino acid substitutions of the rGTP-specific binding pocket did not significantly affect the in vitro RdRp activity of purified recombinant NS5B proteins, as measured by their abilities to synthesize RNA on an RNA template containing the 3' untranslated region of HCV negative-strand RNA. However, most mutations of the rGTP-specific binding site either impaired or completely ablated the ability of subgenomic HCV RNAs to induce cell colony formation. Likewise, these mutations caused either reduction in or lethality to transient replication of the human immunodeficiency virus Tat-expressing HCV

replicon RNAs in the cell. Collectively, these findings demonstrate that the rGTP-specific binding site of the HCV NS5B is not required for in vitro RdRp activity but is important for HCV RNA replication in vivo.

L8 ANSWER 5 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:499441 BIOSIS

DOCUMENT NUMBER: PREV200510264656

TITLE: Screening for hepatitis C virus antiviral activity with a cell-based secreted alkaline phosphatase reporter replicon system.

AUTHOR(S): Bourne, Nigel [Reprint Author]; Pyles, Richard B.; Yi, MinKyung; Veselenak, Ronald L.; Davis, Melissa M.; Lemon, Stanley M.

CORPORATE SOURCE: Univ Texas, Med Branch, Dept Pediat, 301 Univ Blvd, Galveston, TX 77555 USA  
nibourne@utmb.edu

SOURCE: Antiviral Research, (AUG 2005) Vol. 67, No. 2, pp. 76-82.  
CODEN: ARSRDR. ISSN: 0166-3542.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2005

Last Updated on STN: 16 Nov 2005

AB We describe a phased screening system for discovery of compounds with antiviral activity against hepatitis C virus (HCV). The primary assay utilizes dicistronic subgenomic HCV replicons in which the upstream cistron was modified to express the human immunodeficiency virus (HIV) tat protein. When these replicons are stably transfected into Huh-7-derived cells that express secreted alkaline phosphatase (SEAP) under transcriptional control of the HIV long terminal repeat promoter, there is a strong correlation between intracellular HCV RNA abundance and the activity of SEAP secreted into the culture medium. Thus, active compounds are easily identified by direct enzymatic quantification of SEAP in the medium without post-assay processing. Compounds that reduce SEAP activity without causing cellular toxicity are next evaluated in a second Huh-7-derived cell line constitutively expressing SEAP under control of the tat-HIV promoter axis, independent of HCV RNA replication. This specificity control identifies compounds that cause reductions in SEAP that are unrelated to suppression of HCV RNA replication. Compounds showing HCV-specific activity in primary assays are next evaluated by real-time RT-PCR to directly quantify reductions in HCV RNA. We have found excellent agreement between the SEAP and RT-PCR assays. This phased system provides an efficient and cost-effective screen for compounds with antiviral activity

against HCV. (c) 2005 Elsevier B.V. All rights reserved.

L8 ANSWER 6 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:40211 BIOSIS

DOCUMENT NUMBER: PREV200300040211

TITLE: Subgenomic hepatitis C virus replicons inducing expression of a secreted enzymatic reporter protein.

AUTHOR(S): Yi, Minkyung; Bodola, Francis; Lemon, Stanley M. [Reprint Author]

CORPORATE SOURCE: Department of Microbiology and Immunology, Medical Branch

at Galveston, University of Texas, 301 University Boulevard, Galveston, TX, 77555-1019, USA  
smlemon@utmb.edu

SOURCE: Virology, (December 20 2002) Vol. 304, No. 2, pp. 197-210.  
print.

ISSN: 0042-6822 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 15 Jan 2003

Last Updated on STN: 15 Jan 2003

AB We constructed dicistronic, subgenomic hepatitis C virus (HCV) replicons in which the sequence encoding the human immunodeficiency virus (HIV) tat protein was placed in the upstream cistron, between the HCV 5'NTR and a picornaviral 2A proteinase sequence fused to the selectable marker Neo. Stably transformed Huh7 cells expressing secreted alkaline phosphatase (SEAP) under transcriptional control of the HIV LTR promoter actively secreted SEAP following transfection with these replicon RNAs. Extracellular SEAP activity correlated closely with intracellular HCV RNA levels, as determined by Northern blotting and real-time RT-PCR analysis. These RNAs replicated efficiently despite the absence of core-protein-coding sequence downstream of the HCV IRES. The replication efficiency of replicons derived from the HCV -N strain of HCV was significantly greater than those derived from Con1 in transiently transfected cells. Using this reporter system, we have demonstrated significant differences in the response to interferon alpha-2b in cell lines containing replicons derived from these two strains of HCV.

=> mutant and l1

L9 91 MUTANT AND L1

=> replicon and L9

L10 91 REPLICON AND L9

=> subgenomic and L10

L11 54 SUBGENOMIC AND L10

=> D L11 IBIB TI 1-54

L11 ANSWER 1 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:478128 CAPLUS

DOCUMENT NUMBER: 145:202057

TITLE: Inhibition of hepatitis C replicon RNA  
synthesis by .beta.-D-2'-deoxy-2'-fluoro-2'-C-  
methylcytidine: a specific inhibitor of hepatitis C  
virus replication

AUTHOR(S): Stuyver, Lieven J.; McBrayer, Tamara R.; Tharnish,  
Phillip M.; Clark, Jeremy; Hollecker, Laurent; Lostia,  
Stefania; Nachman, Tammy; Grier, Jason; Bennett,  
Matthew A.; Xie, Meng-Yu; Schinazi, Raymond F.;  
Morrey, John D.; Julander, Justin L.; Furman, Phillip  
A.; Otto, Michael J.

CORPORATE SOURCE: Pharmasset Inc, Princeton, NJ, USA

SOURCE: Antiviral Chemistry & Chemotherapy (2006), 17(2),  
79-87

CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: International Medical Press, Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Inhibition of hepatitis C replicon RNA synthesis by  
.beta.-D-2'-deoxy-2'-fluoro-2'-C-methylcytidine: a specific inhibitor of  
hepatitis C virus replication

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:326091 CAPLUS

DOCUMENT NUMBER: 144:366251

TITLE: Effect of hepatitis C virus (HCV)  
NS5B-nucleolin interaction on HCV  
replication with HCV subgenomic  
replicon

AUTHOR(S): Shimakami, Tetsuro; Honda, Masao; Kusakawa, Takashi;  
Murata, Takayuki; Shimotohno, Kunitada; Kaneko,  
Shuichi; Murakami, Seishi

CORPORATE SOURCE: Department of Gastroenterology, Kanazawa University  
Graduate School of Medicine, Kanazawa, Ishikawa,



920-0934, Japan

SOURCE: Journal of Virology (2006), 80(7), 3332-3340  
CODEN: JOVIAM; ISSN: 0022-538X  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI Effect of hepatitis C virus (HCV) NS5B-nucleolin interaction on  
HCV replication with HCV subgenomic  
replicon  
REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:110540 CAPLUS

DOCUMENT NUMBER: 144:365287

TITLE: Structural and Biological Identification of Residues  
on the Surface of NS3 Helicase Required for Optimal  
Replication of the Hepatitis C Virus

AUTHOR(S): Mackintosh, Samuel G.; Lu, Jeff Zhiqiang; Jordan, John  
B.; Harrison, Melody K.; Sikora, Bartek; Sharma,  
Suresh D.; Cameron, Craig E.; Raney, Kevin D.; Sakon,  
Joshua

CORPORATE SOURCE: Department of Biochemistry and Molecular Biology,  
University of Arkansas for Medical Sciences, Little  
Rock, AR, 72205, USA

SOURCE: Journal of Biological Chemistry (2006), 281(6),  
3528-3535

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular  
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Structural and Biological Identification of Residues on the Surface of NS3  
Helicase Required for Optimal Replication of the Hepatitis C Virus

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:109038 CAPLUS

DOCUMENT NUMBER: 144:461804

TITLE: Insertion and deletion analyses identify regions of  
non-structural protein 5A of Hepatitis C virus that  
are dispensable for viral genome replication

AUTHOR(S): Liu, Shuanghu; Ansari, Israrul H.; Das, Subash C.;

Pattnaik, Asit K.  
CORPORATE SOURCE: Department of Veterinary and Biomedical Sciences and  
Nebraska Center for Virology, University of  
Nebraska-Lincoln (UNL), Lincoln, NE, 68588-0666, USA  
SOURCE: Journal of General Virology (2006), 87(2), 323-327  
CODEN: JGVIAI; ISSN: 0022-1317  
PUBLISHER: Society for General Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI Insertion and deletion analyses identify regions of non-structural protein  
5A of Hepatitis C virus that are dispensable for viral genome replication  
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:1235073 CAPLUS  
DOCUMENT NUMBER: 144:123735  
TITLE: Binding Site Characterization and Resistance to a  
Class of Non-nucleoside Inhibitors of the Hepatitis C  
Virus NS5B Polymerase  
AUTHOR(S): Kukolj, George; McGibbon, Graham A.; McKercher,  
Ginette; Marquis, Martin; Lefebvre, Sylvain;  
Thauvette, Louise; Gauthier, Jean; Goulet, Sylvie;  
Poupart, Marc-Andre; Beaulieu, Pierre L.  
CORPORATE SOURCE: Departments of Biological Sciences and Chemistry,  
Research and Development, Boehringer Ingelheim, Ltd.,  
Laval, QC, H7S 2G5, Can.  
SOURCE: Journal of Biological Chemistry (2005), 280(47),  
39260-39267  
CODEN: JBCHA3; ISSN: 0021-9258  
PUBLISHER: American Society for Biochemistry and Molecular  
Biology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI Binding Site Characterization and Resistance to a Class of Non-nucleoside  
Inhibitors of the Hepatitis C Virus NS5B Polymerase  
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:1191118 CAPLUS  
DOCUMENT NUMBER: 144:18739  
TITLE: Functional Analysis of RNA Binding by the Hepatitis C  
Virus RNA-dependent RNA Polymerase

AUTHOR(S): Kim, Young-Chan; Russell, William K.; Ranjith-Kumar,  
C. T.; Thomson, Michael; Russell, David H.; Kao, C.  
Cheng  
CORPORATE SOURCE: Departments of Biochemistry and Biophysics, Texas  
A&M  
University, College Station, TX, 77843, USA  
SOURCE: Journal of Biological Chemistry (2005), 280(45),  
38011-38019  
CODEN: JBCHA3; ISSN: 0021-9258  
PUBLISHER: American Society for Biochemistry and Molecular  
Biology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI Functional Analysis of RNA Binding by the Hepatitis C Virus RNA-dependent  
RNA Polymerase  
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:1160403 CAPLUS  
DOCUMENT NUMBER: 144:1953  
TITLE: Human VAP-B is involved in hepatitis C virus  
replication through interaction with NS5A and NS5B  
AUTHOR(S): Hamamoto, Itsuki; Nishimura, Yorihiro; Okamoto, Toru;  
Aizaki, Hideki; Liu, Minyi; Mori, Yoshio; Abe,  
Takayuki; Suzuki, Tetsuro; Lai, Michael M. C.;  
Miyamura, Tatsuo; Moriishi, Kohji; Matsuura, Yoshiharu  
CORPORATE SOURCE: Department of Molecular Virology, Research Institute  
for Microbial Diseases, Osaka University, Osaka, Japan  
SOURCE: Journal of Virology (2005), 79(21), 13473-13482  
CODEN: JOVIAM; ISSN: 0022-538X  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI Human VAP-B is involved in hepatitis C virus replication through  
interaction with NS5A and NS5B  
REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:1093801 CAPLUS  
DOCUMENT NUMBER: 144:17755  
TITLE: Mutations conferring resistance to a hepatitis C virus  
(HCV) RNA-dependent RNA polymerase inhibitor alone or

in combination with an HCV serine protease inhibitor  
in vitro

AUTHOR(S): Mo, Hongmei; Lu, Liangjun; Pilot-Matias, Tami;  
Pithawalla, Ron; Mondal, Rubina; Masse, Sherie;  
Dekhtyar, Tatyana; Ng, Teresa; Koev, Gennadiy; Stoll,  
Vincent; Stewart, Kent D.; Pratt, John; Donner, Pam;  
Rockway, Todd; Maring, Clarence; Molla, Akhteruzzaman

CORPORATE SOURCE: Antiviral Research, Abbott Laboratories Global  
Pharmaceutical Research and Development, Abbott Park,  
IL, USA

SOURCE: Antimicrobial Agents and Chemotherapy (2005), 49(10),  
4305-4314

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Mutations conferring resistance to a hepatitis C virus (HCV) RNA-dependent  
RNA polymerase inhibitor alone or in combination with an HCV serine  
protease inhibitor in vitro

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:592612 CAPLUS

DOCUMENT NUMBER: 144:200

TITLE: Inhibition of hepatitis C virus translation and  
subgenomic replication by siRNAs directed  
against highly conserved HCV sequence and cellular HCV  
cofactors

AUTHOR(S): Korf, Mortimer; Jarczak, Dominik; Beger, Carmela;  
Manns, Michael P.; Kruger, Martin

CORPORATE SOURCE: Department of Gastroenterology, Hepatology and  
Endocrinology, Medizinische Hochschule Hannover,  
Hannover, D-30625, Germany

SOURCE: Journal of Hepatology (2005), 43(2), 225-234

CODEN: JOHEEC; ISSN: 0168-8278

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Inhibition of hepatitis C virus translation and subgenomic  
replication by siRNAs directed against highly conserved HCV sequence and  
cellular HCV cofactors

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:409553 CAPLUS  
 DOCUMENT NUMBER: 142:459118  
 TITLE: HCV NS3-NS4A protease resistance mutants  
 affecting the activity of NS3-NS4A inhibitory drugs  
 VX-950 and BILN2061 and structure-based anti-HCV drug  
 design  
 INVENTOR(S): Lin, Chao; Lin, Kai  
 PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA  
 SOURCE: PCT Int. Appl., 113 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042570	A1	20050512	WO 2004-US35839	20041027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004285019	A1	20050512	AU 2004-285019	20041027
CA 2551074	AA	20050512	CA 2004-2551074	20041027
US 2005136400	A1	20050623	US 2004-974558	20041027
EP 1678202	A1	20060712	EP 2004-817468	20041027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
PRIORITY APPLN. INFO.: US 2003-514740P P 20031027 US 2003-525222P P 20031126 US 2004-561662P P 20040413 WO 2004-US35839 W 20041027				
TI HCV NS3-NS4A protease resistance mutants affecting the activity of NS3-NS4A inhibitory drugs VX-950 and BILN2061 and structure-based anti-HCV drug design				
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS				

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:52923 CAPLUS

DOCUMENT NUMBER: 142:274932

TITLE: Efficient rescue of hepatitis C virus RNA replication  
by trans-complementation with nonstructural protein 5A

AUTHOR(S): Appel, Nicole; Herian, Ulrike; Bartenschlager, Ralf

CORPORATE SOURCE: Department of Molecular Virology, University of  
Heidelberg, Heidelberg, Germany

SOURCE: Journal of Virology (2005), 79(2), 896-909

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Efficient rescue of hepatitis C virus RNA replication by  
trans-complementation with nonstructural protein 5A

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:458331 CAPLUS

DOCUMENT NUMBER: 141:119287

TITLE: Mutational Analysis of Hepatitis C Virus NS5B in the  
Subgenomic Replicon Cell Culture

AUTHOR(S): Ma, Yuanyuan; Shimakami, Tetsuro; Luo, Hong; Hayashi,  
Naoyuki; Murakami, Seishi

CORPORATE SOURCE: Department of Molecular Oncology, Cancer Research  
Institute, Kanazawa University Graduate School of  
Medicine, Kanazawa, Ishikawa, 920-0934, Japan

SOURCE: Journal of Biological Chemistry (2004), 279(24),  
25474-25482

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular  
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Mutational Analysis of Hepatitis C Virus NS5B in the Subgenomic  
Replicon Cell Culture

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:325457 CAPLUS

DOCUMENT NUMBER: 141:16899  
TITLE: In Vitro Resistance Studies of Hepatitis C Virus  
Serine Protease Inhibitors, VX-950 and BILN 2061:  
structural analysis indicates different resistance  
mechanisms  
AUTHOR(S): Lin, Chao; Lin, Kai; Luong, Yu-Ping; Rao, B. Govinda;  
Wei, Yun-Yi; Brennan, Debra L.; Fulghum, John R.;  
Hsiao, Hsun-Mei; Ma, Sue; Maxwell, John P.; Cottrell,  
Kevin M.; Perni, Robert B.; Gates, Cynthia A.; Kwong,  
Ann D.  
CORPORATE SOURCE: Vertex Pharmaceuticals Inc., Cambridge, MA, 02139,  
USA  
SOURCE: Journal of Biological Chemistry (2004), 279(17),  
17508-17514  
CODEN: JBCHA3; ISSN: 0021-9258  
PUBLISHER: American Society for Biochemistry and Molecular  
Biology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI In Vitro Resistance Studies of Hepatitis C Virus Serine Protease  
Inhibitors, VX-950 and BILN 2061: structural analysis indicates different  
resistance mechanisms  
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:266699 CAPLUS  
DOCUMENT NUMBER: 140:420498  
TITLE: The C-terminal transmembrane domain of hepatitis C  
virus (HCV) RNA polymerase is essential for HCV  
replication in vivo  
AUTHOR(S): Lee, Ki Jeong; Choi, Jinah; Ou, Jing-hsiung; Lai,  
Michael M. C.  
CORPORATE SOURCE: Department of Molecular Microbiology and Immunology,  
Keck School of Medicine, University of Southern  
California, Los Angeles, CA, 90033, USA  
SOURCE: Journal of Virology (2004), 78(7), 3797-3802  
CODEN: JOVIAM; ISSN: 0022-538X  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
TI The C-terminal transmembrane domain of hepatitis C virus (HCV) RNA  
polymerase is essential for HCV replication in vivo  
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 15 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:248771 CAPLUS

DOCUMENT NUMBER: 140:389517

TITLE: Induced oxidative stress and activated expression of  
manganese superoxide dismutase during hepatitis C  
virus replication: role of JNK, p38 MAPK and AP-1

AUTHOR(S): Qadri, Ishtiaq; Iwahashi, Mieko; Capasso, Juan M.;  
Hopken, Matthew W.; Flores, Sonia; Schaack, Jerome;  
Simon, Francis R.

CORPORATE SOURCE: Division of Gastroenterology and Hepatology,  
Department of Medicine, University of Colorado Health  
Sciences Center, Denver, CO, 80262, USA

SOURCE: Biochemical Journal (2004), 378(3), 919-928

CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Induced oxidative stress and activated expression of manganese superoxide  
dismutase during hepatitis C virus replication: role of JNK, p38 MAPK and  
AP-1

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 16 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:39320 CAPLUS

DOCUMENT NUMBER: 140:263848

TITLE: Characterization of the inhibition of hepatitis C  
virus RNA replication by nonnucleosides

AUTHOR(S): Tomei, Licia; Altamura, Sergio; Bartholomew, Linda;  
Bisbocci, Monica; Bailey, Carolyn; Bosserman, Michele;  
Cellucci, Antonella; Forte, Eleonora; Incitti, Ilario;  
Orsatti, Laura; Koch, Uwe; De Francesco, Raffaele;  
Olsen, David B.; Carroll, Steven S.; Migliaccio,  
Giovanni

CORPORATE SOURCE: Department of Biochemistry, Istituto di Ricerche di  
Biologia Molecolare P. Angeletti (IRBM), Pomezia,  
Italy

SOURCE: Journal of Virology (2004), 78(2), 938-946

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Characterization of the inhibition of hepatitis C virus RNA replication by



nonnucleosides

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 17 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:39297 CAPLUS

DOCUMENT NUMBER: 140:231279

TITLE: Conserved C-terminal threonine of hepatitis C virus  
NS3 regulates autoproteolysis and prevents product  
inhibition

AUTHOR(S): Wang, Wenyan; Lahser, Frederick C.; Yi, Min Kyung;  
Wright-Minogue, Jacquelyn; Xia, Ellen; Weber, Patricia  
C.; Lemon, Stanley M.; Malcolm, Bruce A.

CORPORATE SOURCE: Department of Structural Chemistry, Schering-Plough  
Research Institute, Kenilworth, NJ, 07033, USA

SOURCE: Journal of Virology (2004), 78(2), 700-709

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Conserved C-terminal threonine of hepatitis C virus NS3 regulates  
autoproteolysis and prevents product inhibition

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES

AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:883438 CAPLUS

DOCUMENT NUMBER: 140:89538

TITLE: Direct interaction between .alpha.-actinin and  
hepatitis C virus NS5B

AUTHOR(S): Lan, Shuiyun; Wang, Hua; Jiang, Hong; Mao, Hongxia;  
Liu, Xiaoying; Zhang, Xiaonan; Hu, Yunwen; Xiang, Li;  
Yuan, Zhenghong

CORPORATE SOURCE: Shanghai Medical College, Key Laboratory of Medical  
Molecular Virology, Fudan University, Shanghai,  
200032, Peop. Rep. China

SOURCE: FEBS Letters (2003), 554(3), 289-294

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Direct interaction between .alpha.-actinin and hepatitis C virus NS5B

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 19 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:811326 CAPLUS

DOCUMENT NUMBER: 139:321251

TITLE: Hepatitis C virus NS5A and subgenomic  
replicon activate NF- $\kappa$ B via tyrosine  
phosphorylation of I $\kappa$ B $\alpha$  and its  
degradation by calpain protease

AUTHOR(S): Waris, Gulam; Livolsi, Antonia; Imbert, Veronique;  
Peyron, Jean-Francois; Siddiqui, Aleem

CORPORATE SOURCE: Department of Microbiology and Program in Molecular  
Biology, University of Colorado Health Sciences  
Center, Denver, CO, 80262, USA

SOURCE: Journal of Biological Chemistry (2003), 278(42),  
40778-40787

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular  
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Hepatitis C virus NS5A and subgenomic replicon  
activate NF- $\kappa$ B via tyrosine phosphorylation of I $\kappa$ B $\alpha$  and  
its degradation by calpain protease

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:366153 CAPLUS

DOCUMENT NUMBER: 139:20427

TITLE: The Hepatitis C Virus Non-structural NS5A Protein  
Inhibits Activating Protein-1 Function by Perturbing  
Ras-ERK Pathway Signaling

AUTHOR(S): Macdonald, Andrew; Crowder, Katherine; Street, Andrew;  
McCormick, Christopher; Saksela, Kalle; Harris, Mark

CORPORATE SOURCE: School of Biochemistry and Molecular Biology, Division  
of Microbiology, University of Leeds, Leeds, LS2 9JT,  
UK

SOURCE: Journal of Biological Chemistry (2003), 278(20),  
17775-17784

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular  
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI The Hepatitis C Virus Non-structural NS5A Protein Inhibits Activating  
Protein-1 Function by Perturbing Ras-ERK Pathway Signaling

REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:311405 CAPLUS

DOCUMENT NUMBER: 139:209691

TITLE: Development of a cell-based assay for monitoring  
specific hepatitis C virus NS3/4A protease activity in  
mammalian cells

AUTHOR(S): Lee, Jin-Ching; Shih, Ya-Feng; Hsu, Sung-Po; Chang,  
Ten-Yuan; Chen, Lee-Hua; Hsu, John T. A.

CORPORATE SOURCE: Division of Biotechnology and Pharmaceutical Research,  
National Health Research Institutes, Taipei, 115,  
Taiwan

SOURCE: Analytical Biochemistry (2003), 316(2), 162-170  
CODEN: ANBCA2; ISSN: 0003-2697

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Development of a cell-based assay for monitoring specific hepatitis C  
virus NS3/4A protease activity in mammalian cells

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 22 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:246806 CAPLUS

DOCUMENT NUMBER: 139:67081

TITLE: Interaction with a ubiquitin-like protein enhances the  
ubiquitination and degradation of hepatitis C virus  
RNA-dependent RNA polymerase

AUTHOR(S): Gao, Lu; Tu, Hong; Shi, Stephanie T.; Lee, Ki-Jeong;  
Asanaka, Miyuki; Hwang, Soon B.; Lai, Michael M. C.

CORPORATE SOURCE: Department of Molecular Microbiology and Immunology,  
Keck School of Medicine, University of Southern  
California, Los Angeles, CA, 90033, USA

SOURCE: Journal of Virology (2003), 77(7), 4149-4159  
CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Interaction with a ubiquitin-like protein enhances the ubiquitination and  
degradation of hepatitis C virus RNA-dependent RNA polymerase

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES  
AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 23 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:199010 CAPLUS

DOCUMENT NUMBER: 139:223763

TITLE: In vitro selection and characterization of hepatitis C  
virus serine protease variants resistant to an  
active-site peptide inhibitor

AUTHOR(S): Trozzi, Caterina; Bartholomew, Linda; Ceccacci,  
Alessandra; Biasiol, Gabriella; Pacini, Laura;  
Altamura, Sergio; Narjes, Frank; Muraglia, Ester;  
Paonessa, Giacomo; Koch, Uwe; De Francesco, Raffaele;  
Steinkuhler, Christian; Migliaccio, Giovanni

CORPORATE SOURCE: IRBM "P. Angeletti", Rome, 00040, Italy

SOURCE: Journal of Virology (2003), 77(6), 3669-3679

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI In vitro selection and characterization of hepatitis C virus serine  
protease variants resistant to an active-site peptide inhibitor

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:198999 CAPLUS

DOCUMENT NUMBER: 139:31700

TITLE: 3' Nontranslated RNA signals required for replication  
of hepatitis c virus RNA

AUTHOR(S): Yi, MinKyung; Lemon, Stanley M.

CORPORATE SOURCE: Department of Microbiology and Immunology, The  
University of Texas Medical Branch at Galveston,  
Galveston, TX, 77555-1019, USA

SOURCE: Journal of Virology (2003), 77(6), 3557-3568

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI 3' Nontranslated RNA signals required for replication of hepatitis c virus  
RNA

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:375453 CAPLUS

DOCUMENT NUMBER: 137:196537

TITLE: Genetic analysis of sequences in the 3' nontranslated  
region of hepatitis C virus that are important for RNA  
replication

AUTHOR(S): Friebe, Peter; Bartenschlager, Ralf

CORPORATE SOURCE: Institute for Virology, Johannes Gutenberg University  
Mainz, Mainz, 55131, Germany

SOURCE: Journal of Virology (2002), 76(11), 5326-5338

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Genetic analysis of sequences in the 3' nontranslated region of hepatitis  
C virus that are important for RNA replication

REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 26 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:123200 CAPLUS

DOCUMENT NUMBER: 136:178940

TITLE: Cells with enhanced replication of hepatitis C virus  
sub-genomic RNA and its use in antiviral drug  
screening

INVENTOR(S): Lu, Hui-Hua; Selby, Mark

PATENT ASSIGNEE(S): Chiron Corporation, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002012477	A2	20020214	WO 2001-US124276	20010803
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WO 2002012477	A3	20030410		
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,  
DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,  
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,  
TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,

KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,  
IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG

CA 2416633 AA 20020214 CA 2001-2416633 20010803  
AU 2001078139 A5 20020218 AU 2001-78139 20010803  
US 2002142455 A1 20021003 US 2001-922962 20010803  
US 6660471 B2 20031209  
EP 1320583 A2 20030625 EP 2001-956106 20010803  
EP 1320583 B1 20060301

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

AT 318893 E 20060315 AT 2001-956106 20010803  
US 2004076612 A1 20040422 US 2003-684846 20031014

PRIORITY APPLN. INFO.: US 2000-223244P P 20000804  
US 2001-922962 A3 20010803  
WO 2001-US24276 W 20010803

TI Cells with enhanced replication of hepatitis C virus sub-genomic RNA and  
its use in antiviral drug screening

L11 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:251500 CAPLUS

DOCUMENT NUMBER: 135:18375

TITLE: Interferon-.alpha. inhibits hepatitis C virus  
subgenomic RNA replication by an  
MxA-independent pathway

AUTHOR(S): Frese, Michael; Pietschmann, Thomas; Moradpour,  
Darius; Haller, Otto; Bartenschlager, Ralf

CORPORATE SOURCE: Abteilung Virologie, Institut für Medizinische  
Mikrobiologie und Hygiene, Universität Freiburg,  
Freiburg, D-79104, Germany

SOURCE: Journal of General Virology (2001), 82(4), 723-733  
CODEN: JGVIAY; ISSN: 0022-1317

PUBLISHER: Society for General Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Interferon-.alpha. inhibits hepatitis C virus subgenomic RNA  
replication by an MxA-independent pathway

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES  
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 28 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:330985 BIOSIS

DOCUMENT NUMBER: PREV200600330857

**TITLE:** Effect of hepatitis C virus (HCV) NS5B-nucleolin interaction on HCV replication with HCV subgenomic replicon.

**AUTHOR(S):** Shimakami, Tetsuro; Honda, Masao; Kusakawa, Takashi; Murata, Takayuki; Shimotohno, Kunitada; Kaneko, Shuichi; Murakami, Seishi [Reprint Author]

**CORPORATE SOURCE:** Kanazawa Univ, Dept Mol Oncol, Canc Res Inst, 13-1 Takara  
Machi, Kanazawa, Ishikawa 9200934, Japan  
semuraka@kenroku.kanazawa-u.ac.jp

**SOURCE:** Journal of Virology, (APR 2006) Vol. 80, No. 7, pp. 3332-3340.  
CODEN: JOVIAM. ISSN: 0022-538X.

**DOCUMENT TYPE:** Article

**LANGUAGE:** English

**ENTRY DATE:** Entered STN: 28 Jun 2006  
Last Updated on STN: 28 Jun 2006

**TI** Effect of hepatitis C virus (HCV) NS5B-nucleolin interaction on HCV replication with HCV subgenomic replicon.

L11 ANSWER 29 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

STN

**ACCESSION NUMBER:** 2006:253016 BIOSIS

**DOCUMENT NUMBER:** PREV200600249606

**TITLE:** Structural and biological identification of residues on the surface of NS3 helicase required for optimal replication of the hepatitis C virus.

**AUTHOR(S):** Mackintosh, Samuel G.; Lu, Jeff Zhiqiang; Jordan, John B.; Harrison, Melody K.; Sikora, Bartek; Sharma, Suresh D.; Cameron, Craig E.; Raney, Kevin D. [Reprint Author]; Sakon, Joshua

**CORPORATE SOURCE:** Univ Arkansas Med Sci, Dept Biochem and Mol Biol, Little Rock, AR 72205 USA  
raneykevind@uams.edu; jsakon@uark.edu

**SOURCE:** Journal of Biological Chemistry, (FEB 10 2006) Vol. 281, No. 6, pp. 3528-3535.  
CODEN: JBCHA3. ISSN: 0021-9258.

**DOCUMENT TYPE:** Article

**LANGUAGE:** English

**ENTRY DATE:** Entered STN: 26 Apr 2006  
Last Updated on STN: 26 Apr 2006

**TI** Structural and biological identification of residues on the surface of NS3 helicase required for optimal replication of the hepatitis C virus.

L11 ANSWER 30 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:238828 BIOSIS

DOCUMENT NUMBER: PREV200600239794

TITLE: Insertion and deletion analyses identify regions of  
non-structural protein 5A of Hepatitis C virus that are  
dispensable for viral genome replication.

AUTHOR(S): Liu, Shuanghu; Ansari, Israrul H.; Das, Subash C.;  
Pattnaik, Asit K. [Reprint Author]

CORPORATE SOURCE: Univ Nebraska, Dept Vet and Biomed Sci, E126 Beadle  
Ctr, 1901 Vine St, Lincoln, NE 68588 USA  
apattnaik2@unl.edu

SOURCE: Journal of General Virology, (FEB 2006) Vol. 87, No. Part  
2, pp. 323-327.

CODEN: JGVIA Y. ISSN: 0022-1317.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Apr 2006

Last Updated on STN: 19 Apr 2006

TI Insertion and deletion analyses identify regions of non-structural protein  
5A of Hepatitis C virus that are dispensable for viral genome replication.

L11 ANSWER 31 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:210739 BIOSIS

DOCUMENT NUMBER: PREV200600212468

TITLE: Persistence of HCV replication in sirna-treated  
HCV replicon cells is correlated with the  
development of HCV mutations.

AUTHOR(S): Konishi, Masayoshi; Kaito, Masahiko; Adachi, Yukihiro; Wu,  
Catherine H.; Wu, George Y.

SOURCE: Gastroenterology, (APR 2005) Vol. 128, No. 4, Suppl. 2, pp.  
A698.

Meeting Info.: Annual Meeting of the American-  
Gastroenterological-Association/Digestive-Disease-Week.  
Chicago, IL, USA. May 14 -19, 2005. Amer Gastroenterol  
Assoc.

CODEN: GASTAB. ISSN: 0016-5085.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Mar 2006

Last Updated on STN: 29 Mar 2006

TI Persistence of HCV replication in sirna-treated HCV



replicon cells is correlated with the development of HCV mutations.

L11 ANSWER 32 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:210729 BIOSIS

DOCUMENT NUMBER: PREV200600212458

TITLE: Tumor suppressor p53 inhibits replication of hepatitis C  
virus subgenomic replicon in human  
hepatoma cells.

AUTHOR(S): Dharel, Narayan; Kato, Naoya; Taniguchi, Hiroyoshi; Otsuka,  
Motoyuki; Moriyama, Masaru; Muroyama, Ryosuke; Wang, Yen;  
Shao, Run-Xuan; Kawabe, Takao; Omata, Masao

SOURCE: Gastroenterology, (APR 2005) Vol. 128, No. 4, Suppl. 2, pp.  
A696,A695.

Meeting Info.: Annual Meeting of the American-  
Gastroenterological-Association/Digestive-Disease-Week.  
Chicago, IL, USA. May 14 -19, 2005. Amer Gastroenterol  
Assoc.

CODEN: GASTAB. ISSN: 0016-5085.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Mar 2006

Last Updated on STN: 29 Mar 2006

TI Tumor suppressor p53 inhibits replication of hepatitis C virus  
subgenomic replicon in human hepatoma cells.

L11 ANSWER 33 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:94810 BIOSIS

DOCUMENT NUMBER: PREV200600096254

TITLE: Binding site characterization and resistance to a class of  
non-nucleoside inhibitors of the hepatitis C virus NS5B  
polymerase.

AUTHOR(S): Kukolj, George [Reprint Author]; McGibbon, Graham A.;  
McKercher, Ginette; Marquis, Martin; Lefebvre, Sylvain;  
Thauvette, Louise; Gauthier, Jean; Goulet, Sylvie; Poupert,  
Marc-Andre; Beaulieu, Pierre L.

CORPORATE SOURCE: 2100 Rue Cunard, Laval, PQ H7S 2G5, Canada  
gkukolj@lav.boehringer-ingenelheim.com

SOURCE: Journal of Biological Chemistry, (NOV 25 2005) Vol. 280,  
No. 47, pp. 39260-39267.

CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 1 Feb 2006

Last Updated on STN: 1 Feb 2006

TI Binding site characterization and resistance to a class of non-nucleoside inhibitors of the hepatitis C virus NS5B polymerase.

L11 ANSWER 34 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:84742 BIOSIS

DOCUMENT NUMBER: PREV200600087968

TITLE: Functional analysis of RNA binding by the hepatitis C virus  
RNA-dependent RNA polymerase.

AUTHOR(S): Kim, Young-Chan; Russell, William K.; Ranjith-Kumar, C. T.;  
Thomson, Michael; Russell, David H.; Kao, C. Cheng [Reprint  
Author]

CORPORATE SOURCE: Texas A and M Univ, Dept Biochem and Biophys, College  
Stn,

TX 77843 USA

ckao@tamu.edu

SOURCE: Journal of Biological Chemistry, (NOV 11 2005) Vol. 280,  
No. 45, pp. 38011-38019.

CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 25 Jan 2006

Last Updated on STN: 25 Jan 2006

TI Functional analysis of RNA binding by the hepatitis C virus RNA-dependent  
RNA polymerase.

L11 ANSWER 35 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2006:39647 BIOSIS

DOCUMENT NUMBER: PREV200600039227

TITLE: Human VAP-B is involved in hepatitis C virus replication  
through interaction with NS5A and NS5B.

AUTHOR(S): Hamamoto, Itsuki; Nishimura, Yorihiro; Okamoto, Toru;  
Aizaki, Hideki; Liu, Minyi; Mori, Yoshio; Abe, Takayuki;  
Suzuki, Tetsuro; Lai, Michael M. C.; Miyamura, Tatsuo;  
Moriishi, Kohji; Matsuura, Yoshiharu [Reprint Author]

CORPORATE SOURCE: Osaka Univ, Microbial Dis Res Inst, Dept Mol Virol, 3-1  
Yamadaoka, Suita, Osaka 5650871, Japan

matsuura@biken.osaka-u.ac.jp

SOURCE: Journal of Virology, (NOV 2005) Vol. 79, No. 21, pp.

13473-13482.

CODEN: JOVIAM. ISSN: 0022-538X.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 28 Dec 2005

Last Updated on STN: 28 Dec 2005

TI Human VAP-B is involved in hepatitis C virus replication through interaction with NS5A and NS5B.

L11 ANSWER 36 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2005:455675 BIOSIS

DOCUMENT NUMBER: PREV200510233021

TITLE: Mutations conferring resistance to a hepatitis C virus  
(HCV) RNA-dependent RNA polymerase inhibitor alone or in  
combination with an HCV serine protease inhibitor in vitro.

AUTHOR(S): Mo, Hongmei [Reprint Author]; Lu, Liangjun; Pilot-Matias,  
Tami; Pithawalla, Ron; Mondal, Rubina; Masse, Sherie;  
Dekhtyar, Tatyana; Ng, Teresa; Koev, Gennadiy; Stoll,  
Vincent; Stewart, Kent D.; Pratt, John; Donner, Pam;  
Rockway, Todd; Maring, Clarence; Molla, Akhteruzzaman

CORPORATE SOURCE: Dept R47D, Bldg AP52-N, 200 Abbott Pk Rd, Abbott Pk, IL  
60064 USA

Hongmei.Mo@abbott.com

SOURCE: Antimicrobial Agents and Chemotherapy, (OCT 2005) Vol. 49,  
No. 10, pp. 4305-4314.

CODEN: AMACQ. ISSN: 0066-4804.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 3 Nov 2005

Last Updated on STN: 3 Nov 2005

TI Mutations conferring resistance to a hepatitis C virus (HCV) RNA-dependent  
RNA polymerase inhibitor alone or in combination with an HCV serine  
protease inhibitor in vitro.

L11 ANSWER 37 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2005:367801 BIOSIS

DOCUMENT NUMBER: PREV200510150177

TITLE: Inhibition of hepatitis C virus translation and  
subgenomic replication by siRNAs directed against  
highly conserved HCV sequence and cellular HCV cofactors.

AUTHOR(S): Korf, Mortimer; Jarczak, Dominik; Beger, Carmela; Manns,  
Michael P.; Krueger, Martin [Reprint Author]

CORPORATE SOURCE: Med Hsch Hannover, Dept Gastroenterol Hepatol and  
Endocrinol, Carl Neuberg Str 1, D-30625 Hannover, Germany  
krueger.martin@mh-hannover.de

SOURCE: Journal of Hepatology, (AUG 2005) Vol. 43, No. 2, pp.  
225-234.

CODEN: JOHEEC. ISSN: 0168-8278.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Sep 2005

Last Updated on STN: 14 Sep 2005

TI Inhibition of hepatitis C virus translation and subgenomic  
replication by siRNAs directed against highly conserved HCV sequence and  
cellular HCV cofactors.

L11 ANSWER 38 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2005:142311 BIOSIS

DOCUMENT NUMBER: PREV200500142761

TITLE: Efficient rescue of hepatitis C virus RNA replication by  
trans-complementation with nonstructural protein 5A.

AUTHOR(S): Appel, Nicole; Herian, Ulrike; Bartenschlager, Ralf  
[Reprint Author]

CORPORATE SOURCE: Dept Mol Virol, Univ Heidelberg, Neuenheimer Feld 345,  
D-69120, Heidelberg, Germany  
Ralf\_Bartenschlager@med.uni-heidelberg.de

SOURCE: Journal of Virology, (January 2005) Vol. 79, No. 2, pp.  
896-909. print.

ISSN: 0022-538X (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 13 Apr 2005

Last Updated on STN: 13 Apr 2005

TI Efficient rescue of hepatitis C virus RNA replication by  
trans-complementation with nonstructural protein 5A.

L11 ANSWER 39 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2004:356829 BIOSIS

DOCUMENT NUMBER: PREV200400363278

TITLE: Dominant negative effect of wild-type NS5A on NS5A-adapted  
subgenomic hepatitis C virus RNA replicon

AUTHOR(S): Graziani, Rita; Paonessa, Giacomo [Reprint Author]

CORPORATE SOURCE: Ist Ric Biol Mol P Angeletti, Via Pontina Km 30600,

I-00040, Pomezia, Italy  
giacomo\_paonessa@merck.com

SOURCE: Journal of General Virology, (July 2004) Vol. 85, No. Part  
7, pp. 1867-1875. print.  
ISSN: 0022-1317 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 5 Sep 2004

Last Updated on STN: 5 Sep 2004

TI Dominant negative effect of wild-type NS5A on NS5A-adapted  
subgenomic hepatitis C virus RNA replicon.

L11 ANSWER 40 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2004:325860 BIOSIS

DOCUMENT NUMBER: PREV200400327486

TITLE: Mutational analysis of hepatitis C virus NS5B in the  
subgenomic replicon cell culture.

AUTHOR(S): Ma, Yuanyuan; Shimakami, Tetsuro; Luo, Hong; Hayashi,  
Naoyuki; Murakami, Seishi [Reprint Author]

CORPORATE SOURCE: Canc Res InstDept Mol Oncol, Kanazawa Univ, 13-1 Takara  
Machi, Kanazawa, Ishikawa, 9200934, Japan  
semuraka@kenroku.kanazawa-u.ac.jp

SOURCE: Journal of Biological Chemistry, (June 11 2004) Vol. 279,  
No. 24, pp. 25474-25482. print.  
CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Jul 2004

Last Updated on STN: 29 Jul 2004

TI Mutational analysis of hepatitis C virus NS5B in the subgenomic  
replicon cell culture.

L11 ANSWER 41 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2004:270606 BIOSIS

DOCUMENT NUMBER: PREV200400270690

TITLE: In vitro resistance studies of hepatitis C virus serine  
protease inhibitors, VX-950 and BILN 2061 - Structural  
analysis indicates different resistance mechanisms.

AUTHOR(S): Lin, Chao [Reprint Author]; Lin, Kai; Luong, Yu-Ping; Rao,  
B. Govinda; Wei, Yun-Yi; Brennan, Debra L.; Fulghum, John  
R.; Hsiao, Hsun-Mei; Ma, Sue; Maxwell, John P.; Cottrell,  
Kevin M.; Perni, Robert B.; Gates, Cynthia A.; Kwong, Ann

D.

CORPORATE SOURCE: Vertex Pharmaceut Inc, 130 Waverly St, Cambridge, MA,  
02139, USA

chao\_lin@vrtx.com

SOURCE: Journal of Biological Chemistry, (April 23 2004) Vol. 279,  
No. 17, pp. 17508-17514. print.

CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

OTHER SOURCE: DDBJ-CAB46913; EMBL-CAB46913; GenBank-CAB46913

ENTRY DATE: Entered STN: 26 May 2004

Last Updated on STN: 26 May 2004

TI In vitro resistance studies of hepatitis C virus serine protease  
inhibitors, VX-950 and BILN 2061 - Structural analysis indicates different  
resistance mechanisms.

L11 ANSWER 42 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2004:269442 BIOSIS

DOCUMENT NUMBER: PREV200400264651

TITLE: Induced oxidative stress and activated expression of  
manganese superoxide dismutase during hepatitis C virus  
replication: role of JNK, p38 MAR and AP-1.

AUTHOR(S): Qadri, Ishtiaq [Reprint Author]; Iwahashi, Mieko; Capasso,  
Juan M.; Hopken, Matthew W.; Flores, Sonia; Schaack,  
Jerome; Simon, Francis R.

CORPORATE SOURCE: Hlth Sci CtrDept MedDiv Gastroenterol & Hepatol, Univ  
Colorado, 4200 E 9th Ave, Denver, CO, 80262, USA  
ishtiaq.qadri@uchsc.edu

SOURCE: Biochemical Journal, (March 15 2004) Vol. 378, No. Part 3,  
pp. 919-928. print.  
ISSN: 0264-6021.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 26 May 2004

Last Updated on STN: 26 May 2004

TI Induced oxidative stress and activated expression of manganese superoxide  
dismutase during hepatitis C virus replication: role of JNK, p38 MAR and  
AP-1.

L11 ANSWER 43 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation  
on

STN

ACCESSION NUMBER: 2004:225799 BIOSIS

DOCUMENT NUMBER: PREV200400226620

**TITLE:** The C-terminal transmembrane domain of hepatitis C virus (HCV) RNA polymerase is essential for HCV replication in vivo.

**AUTHOR(S):** Lee, Ki Jeong; Choi, Jinah; Ou, Jing-hsiung; Lai, Michael M. C. [Reprint Author]

**CORPORATE SOURCE:** Department of Molecular Microbiology and Immunology, Keck School of Medicine, University of Southern California, 2011 Zonal Ave., HMR-401, Los Angeles, CA, 90033, USA  
michlai@usc.edu

**SOURCE:** Journal of Virology, (April 2004) Vol. 78, No. 7, pp. 3797-3802. print.  
ISSN: 0022-538X (ISSN print).

**DOCUMENT TYPE:** Article

**LANGUAGE:** English

**ENTRY DATE:** Entered STN: 21 Apr 2004  
Last Updated on STN: 21 Apr 2004

**TI** The C-terminal transmembrane domain of hepatitis C virus (HCV) RNA polymerase is essential for HCV replication in vivo.

L11 ANSWER 44 OF 54 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

STN

**ACCESSION NUMBER:** 2004:111666 BIOSIS

**DOCUMENT NUMBER:** PREV200400113601

**TITLE:** Characterization of the inhibition of hepatitis C virus RNA replication by nonnucleosides.

**AUTHOR(S):** Tomei, Licia; Altamura, Sergio; Bartholomew, Linda; Bisbocci, Monica; Bailey, Carolyn; Bosserman, Michele; Cellucci, Antonella; Forte, Eleonora; Incitti, Ilario; Orsatti, Laura; Koch, Uwe; De Francesco, Raffaele; Olsen, David B.; Carroll, Steven S. [Reprint Author]; Migliaccio, Giovanni

**CORPORATE SOURCE:** Department of Biological Chemistry, Merck Research Laboratories, West Point, PA, 19486, USA  
steve\_carroll@merck.com; giovanni\_migliaccio@merck.com

**SOURCE:** Journal of Virology, (January 2004) Vol. 78, No. 2, pp. 938-946. print.  
ISSN: 0022-538X (ISSN print).

**DOCUMENT TYPE:** Article

**LANGUAGE:** English

**ENTRY DATE:** Entered STN: 25 Feb 2004  
Last Updated on STN: 25 Feb 2004

**TI** Characterization of the inhibition of hepatitis C virus RNA replication by nonnucleosides.

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STN

ACCESSION NUMBER: 2004:102515 BIOSIS

DOCUMENT NUMBER: PREV200400104193

TITLE: Conserved C-terminal threonine of hepatitis C virus NS3  
regulates autoproteolysis and prevents product inhibition.

AUTHOR(S): Wang, Wenyan; Lahser, Frederick C.; Yi, Minkyung;  
Wright-Minogue, Jacquelyn; Xia, Ellen; Weber, Patricia C.;  
Lemon, Stanley M.; Malcolm, Bruce A. [Reprint Author]

CORPORATE SOURCE: Department of Antiviral Therapeutics, Schering-Plough  
Research Institute, 2015 Galloping Hill Rd., K-15-4945,  
Kenilworth, NJ, 07033, USA  
bruce.malcolm@spcorp.com

SOURCE: Journal of Virology, (January 2004) Vol. 78, No. 2, pp.  
700-709. print.

ISSN: 0022-538X (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 18 Feb 2004

Last Updated on STN: 18 Feb 2004

TI Conserved C-terminal threonine of hepatitis C virus NS3 regulates  
autoproteolysis and prevents product inhibition.

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on

STN

ACCESSION NUMBER: 2003:587925 BIOSIS

DOCUMENT NUMBER: PREV200300570722

TITLE: Direct interaction between alpha-actinin and hepatitis C  
virus NS5B.

AUTHOR(S): Lan, Shuiyun; Wang, Hua; Jiang, Hong; Mao, Hongxia; Liu,  
Xiaoying; Zhang, Xiaonan; Hu, Yunwen; Xiang, Li; Yuan,  
Zhenghong [Reprint Author]

CORPORATE SOURCE: Key Laboratory of Medical Molecular Virology, Shanghai  
Medical College, Fudan University, Shanghai, 200032, China  
zhyuan@shmu.edu.cn

SOURCE: FEBS Letters, (20 November 2003) Vol. 554, No. 3, pp.  
289-294. print.

CODEN: FEBLAL. ISSN: 0014-5793.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Dec 2003

Last Updated on STN: 10 Dec 2003

TI Direct interaction between alpha-actinin and hepatitis C virus NS5B.



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STN

ACCESSION NUMBER: 2003:577604 BIOSIS

DOCUMENT NUMBER: PREV200300583408

TITLE: Hepatitis C virus NS5A and subgenomic  
replicon activate NF-kappaB via tyrosine  
phosphorylation of IkappaBalpha and its degradation by  
calpain protease.

AUTHOR(S): Waris, Gulam; Livolsi, Antonia; Imbert, Veronique; Peyron,  
Jean-Francois; Siddiqui, Aleem [Reprint Author]

CORPORATE SOURCE: Department of Microbiology and Program in Molecular  
Biology, University of Colorado Health Sciences Center,  
B-172, Denver, CO, 80262, USA  
aleem.siddiqui@uchsc.edu

SOURCE: Journal of Biological Chemistry, (October 17 2003) Vol.  
278, No. 42, pp. 40778-40787. print.  
CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Dec 2003

Last Updated on STN: 10 Dec 2003

TI Hepatitis C virus NS5A and subgenomic replicon  
activate NF-kappaB via tyrosine phosphorylation of IkappaBalpha and its  
degradation by calpain protease.

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on

STN

ACCESSION NUMBER: 2003:320536 BIOSIS

DOCUMENT NUMBER: PREV200300320536

TITLE: The hepatitis C virus non-structural NS5A protein inhibits  
activating protein-1 function by perturbing Ras-ERK pathway  
signaling.

AUTHOR(S): Macdonald, Andrew; Crowder, Katherine; Street, Andrew;  
McCormick, Christopher; Saksela, Kalle; Harris, Mark  
[Reprint Author]

CORPORATE SOURCE: Division of Microbiology, School of Biochemistry and  
Molecular Biology, University of Leeds, Leeds, LS2 9JT, UK  
mharris@bmb.leeds.ac.uk

SOURCE: Journal of Biological Chemistry, (May 16 2003) Vol. 278,  
No. 20, pp. 17775-17784. print.  
CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jul 2003

Last Updated on STN: 9 Jul 2003

TI The hepatitis C virus non-structural NS5A protein inhibits activating protein-1 function by perturbing Ras-ERK pathway signaling.

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on

STN

ACCESSION NUMBER: 2003:298791 BIOSIS

DOCUMENT NUMBER: PREV200300298791

TITLE: Development of a cell-based assay for monitoring specific hepatitis C virus NS3/4A protease activity in mammalian cells.

AUTHOR(S): Lee, Jin-Ching; Shih, Ya-Feng; Hsu, Sung-Po; Chang, Ten-Yuan; Chen, Lee-Hua; Hsu, John T. A. [Reprint Author]

CORPORATE SOURCE: Division of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Taipei, 115, Taiwan  
tsuanhsu@nhri.org.tw

SOURCE: Analytical Biochemistry, (May 15 2003) Vol. 316, No. 2, pp. 162-170. print.

ISSN: 0003-2697 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 25 Jun 2003

Last Updated on STN: 25 Jun 2003

TI Development of a cell-based assay for monitoring specific hepatitis C virus NS3/4A protease activity in mammalian cells.

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on

STN

ACCESSION NUMBER: 2003:212227 BIOSIS

DOCUMENT NUMBER: PREV200300212227

TITLE: Interaction with a ubiquitin-like protein enhances the ubiquitination and degradation of hepatitis C virus RNA-dependent RNA polymerase.

AUTHOR(S): Gao, Lu; Tu, Hong; Shi, Stephanie T.; Lee, Ki-Jeong; Asanaka, Miyuki; Hwang, Soon B.; Lai, Michael M. C. [Reprint Author]

CORPORATE SOURCE: Department of Molecular Microbiology and Immunology, University of Southern California School of Medicine, 2011 Zonal Ave., HMR-401, Los Angeles, CA, 90033-1054, USA  
michlai@hsc.usc.edu

SOURCE: Journal of Virology, (April 2003) Vol. 77, No. 7, pp. 4149-4159. print.

ISSN: 0022-538X (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English  
ENTRY DATE: Entered STN: 30 Apr 2003  
Last Updated on STN: 30 Apr 2003  
TI Interaction with a ubiquitin-like protein enhances the ubiquitination and  
degradation of hepatitis C virus RNA-dependent RNA polymerase.

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on

STN

ACCESSION NUMBER: 2003:182660 BIOSIS

DOCUMENT NUMBER: PREV200300182660

TITLE: In vitro selection and characterization of hepatitis C  
virus serine protease variants resistant to an active-site  
peptide inhibitor.

AUTHOR(S): Trozzi, Caterina; Bartholomew, Linda; Ceccacci, Alessandra;  
Biasiol, Gabriella; Pacini, Laura; Altamura, Sergio;  
Narjes, Frank; Muraglia, Ester; Paonessa, Giacomo; Koch,  
Uwe; De Francesco, Raffaele; Steinkuhler, Christian;  
Migliaccio, Giovanni [Reprint Author]

CORPORATE SOURCE: IRBM "P. Angeletti", Via Pontina Km 30.600, 00040,  
Pomezia,

Rome, Italy

giovanni\_migliaccio@merck.com

SOURCE: Journal of Virology, (March 2003) Vol. 77, No. 6, pp.  
3669-3679. print.  
ISSN: 0022-538X (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Apr 2003

Last Updated on STN: 9 Apr 2003

TI In vitro selection and characterization of hepatitis C virus serine  
protease variants resistant to an active-site peptide inhibitor.

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STN

ACCESSION NUMBER: 2003:182645 BIOSIS

DOCUMENT NUMBER: PREV200300182645

TITLE: 3' Nontranslated RNA signals required for replication of  
hepatitis C virus RNA.

AUTHOR(S): Yi, Minkyung; Lemon, Stanley M. [Reprint Author]

CORPORATE SOURCE: Department of Microbiology and Immunology, Medical  
Branch

at Galveston, University of Texas, 301 University Blvd.,

Galveston, TX, 77555-1019, USA

smlemon@utmb.edu

SOURCE: Journal of Virology, (March 2003) Vol. 77, No. 6, pp.  
3557-3568. print.  
ISSN: 0022-538X (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 9 Apr 2003  
Last Updated on STN: 9 Apr 2003  
TI 3' Nontranslated RNA signals required for replication of hepatitis C virus  
RNA.

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on

STN

ACCESSION NUMBER: 2002:337026 BIOSIS  
DOCUMENT NUMBER: PREV200200337026  
TITLE: Genetic analysis of sequences in the 3' nontranslated  
region of hepatitis C virus that are important for RNA  
replication.  
AUTHOR(S): Friebe, Peter; Bartenschlager, Ralf [Reprint author]  
CORPORATE SOURCE: Abteilung Molekulare Virologie, Hygiene-Institut,  
Otto-Meyerhof-Zentrum, Ruprecht-Karls-Universitaet  
Heidelberg, Im Neuenheimer Feld 350, 69120, Heidelberg,  
Germany  
Ralf\_Bartenschlager@med.uni-heidelberg.de  
SOURCE: Journal of Virology, (June, 2002) Vol. 76, No. 11, pp.  
5326-5338. print.  
CODEN: JOVIAM. ISSN: 0022-538X.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 12 Jun 2002  
Last Updated on STN: 12 Jun 2002  
TI Genetic analysis of sequences in the 3' nontranslated region of hepatitis  
C virus that are important for RNA replication.

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on

STN

ACCESSION NUMBER: 2001:222240 BIOSIS  
DOCUMENT NUMBER: PREV200100222240  
TITLE: Interferon-alpha inhibits hepatitis C virus  
subgenomic RNA replication by an MxA-independent  
pathway.  
AUTHOR(S): Frese, Michael; Pietschmann, Thomas; Moradpour, Darius;  
Haller, Otto; Bartenschlager, Ralf [Reprint author]  
CORPORATE SOURCE: Institut fuer Virologie, Universitaet Mainz, Obere  
Zahlbacher Str. 67, D-55131, Mainz, Germany

bartnsch@mail.uni-mainz.de

SOURCE: Journal of General Virology, (April, 2001) Vol. 82, No. 4,  
pp. 723-733. print.

CODEN: JGVIA Y. ISSN: 0022-1317.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 9 May 2001

Last Updated on STN: 18 Feb 2002

TI Interferon-alpha inhibits hepatitis C virus subgenomic RNA  
replication by an MxA-independent pathway.